UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

### NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 11/10/2011 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA. VA 22314 EXAMINER

WALTERS JR, ROBERT S

ART UNIT PAPER NUMBER

1717

DATE MAILED: 11/10/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,286	10/25/2005	Friedrich Linhart	278601US0PCT	3259

TITLE OF INVENTION: METHOD FOR IMPROVING PRINTABILITY ON PAPER OR PAPER PRODUCTS WITH THE AID OF INK-JET PRINTING METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1740	\$300	\$0	\$2040	02/10/2012

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT, PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

IL PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correct maintenance fee notifica	correspondence includir ed below or directed oth tions.	ng the Patent, advance on herwise in Block 1, by (a	rders and notification of a) specifying a new corre	naintenance fees will be spondence address; and/	mailed to the current or (b) indicating a sep	correspondence address as arate "FEE ADDRESS" for
22850 OBLON, SPIV 1940 DUKE ST	REET		Fee pap hav	(s) Transmittal. This cert ers. Each additional pape e its own certificate of m	ificate cannot be used a er, such as an assignment ailing or transmission.	or domestic mailings of the for any other accompanying ent or formal drawing, must smission g deposited with the United st class mail in an envelope above, or being facstimile are indicated below.
ALEXANDRIA	, VA 22314		add tran	ressed to the Mail Stor smitted to the USPTO (5	ISSUE FEE address 71) 273-2885, on the d	above, or being facsimile ate indicated below.
						(Depositor's name)
			<u> </u>			(Signature)
						(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	ATT	ORNEY DOCKET NO.	CONFIRMATION NO.
10/554,286	10/25/2005		Friedrich Linhart		278601US0PCT	3259
METHOD	N: METHOD FOR IMPR	OVING PRINTABILITY	Y ON PAPER OR PAPER	PRODUCTS WITH TH	E AID OF INK-JET P	RINTING
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nonprovisional	NO	\$1740	\$300	\$0	\$2040	02/10/2012
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	]		
	R, ROBERT S	1717	427-326000			
1. Change of correspondence address or indication of 'Fee Address' (37 CFR 1.56).  Change of correspondence address for Change of Correspondence Address from PIOSB/122, attached.  Tee Address' indication (or 'Fee Address' Indication form PIOSB/47, Rev 03-92 or more recent) attached. Use of a Customer Number is required.		2. For printing on the patent from page, list (1) the names of tup to 3 registered patent attorneys or agents OR, alternatives (2) the name of a single fram thaving as a member a (2) the name of a single fram thaving as a member a (3) the name of a single fram thaving as a member a (3) the name of a single fram thaving or a member a (4) the name of a single fram thaving or a gentis. If no name is 3 issed, no name will be printed.				
PLEASE NOTE: Un recordation as set fort (A) NAME OF ASSI	less an assignee is ident th in 37 CFR 3.11. Comp GNEE		(B) RESIDENCE: (CITY	atent. If an assignee is assignment. and STATE OR COUN	TRY)	oup entity Government
			b. Payment of Fee(s): (Plee A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depi	d. Form PTO-2038 is an	eviously paid issue fee ached.	shown above)
	itus (from status indicate as SMALL ENTITY statu		b. Applicant is no lon	ger claiming SMALL E	TITY status. See 37 C	FR 1.27(g)(2).
NOTE: The Issue Fee an	d Publication Fee (if req		d from anyone other than t			he assignee or other party in
Authorized Signature				Date		
Typed or printed name			Registration No.			
Alexandria, Virginia 223	113-1450.		on is required to obtain or 1.14. This collection is es depending upon the individual of the e Chief Information Office COMPLETED FORMS To spond to a collection of inf			d by the USPTO to process) ng gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450, 4 number.

PTOL-85 (Rev. 02/11) Approved for use through 08/31/2013.



## UNITED STATES PATENT AND TRADEMARK OFFICE

NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/554.286 10/25/2005 Friedrich Linhart 278601US0PCT 3259 22850 11/10/2011 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. WALTERS JR, ROBERT S

1940 DUKE STREET ALEXANDRIA, VA 22314

ART UNIT 1717

DATE MAILED: 11/10/2011

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 393 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 393 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- The information on this form will be treated confidentially to the extent allowed under the Freedom
  of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of
  records may be disclosed to the Department of Justice to determine whether disclosure of these
  records is required by the Freedom of Information Act.
- A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2004 and 2006. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

## Notice of Allowability

Application No.	Applicant(s)	
10/554,286	LINHART ET AL.	
Examiner	Art Unit	
ROBERT S. WAI TERS JR	1717	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.31 and MPEP 1309.

- This communication is responsive to the appeal brief filed 8/8/2011.
- An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 3. A The allowed claim(s) is/are 1-4,6,11-15,17,18 and 22-24.
- 4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All b) Some\* c) None of the:
    - Certified copies of the priority documents have been received.
      - 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
      - 3. 
         \overline{\text{Q}} Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    1) ☐ hereto or 2) ☐ to Paper No./Mail Date
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Paper No /Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of

7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

### Attachment(s)

- 1. Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- /ROBERT S WALTERS JR/

- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413),
- Paper No./Mail Date <u>20111101</u>.

  7. Examiner's Amendment/Comment
- 8. ☑ Examiner's Statement of Reasons for Allowance
- Other \_\_\_\_

Examiner, Art Unit 1717

Art Unit: 1717

#### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Stitzel on 11/3/2011.

The application has been amended as follows:

In claim 1, please remove [consisting essentially of vinylamine units].

Please cancel claims 7, 9 and 10.

## Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

First, applicant's arguments in appeal brief regarding the 112 1st rejections are persuasive. The applicant's originally filed specification supports "after the treatment with the cationic polymer the treated paper or paper product is not coated." It should be noted that "coated" has been interpreted in the art of paper coating as provided by Ullmann's Encyclopedia of Industrial Chemistry, Fifth Edition (which was supplied by applicants). Support in the specification can be found at least at page 5, lines 14-25, where the treatment is applied to the top surface of the paper or after the final coat. Additionally, the examples disclose providing the treatment and no additional coating prior to printing of the paper, thus the paper is not coated (see Examples on

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pages 8-12). Finally, it should be noted that applicant's specification alternatively provides for coating the paper product after the treatment with cationic polymer (see page 5, lines 14-19), therefore providing the basis for excluding additional coatings after the treatment with the cationic polymer. Note that it is well-settled premise of patent law that a negative limitation or exclusionary proviso explicitly excluding an element from a claim is permissible, especially when the element recited in the negative proviso is positively recited in the specification, as argued in applicant's appeal brief.

With regards to prior art, the closest prior art of record to claim 1 is Blum et al. (U.S. PGPUB No. 2004/0154764). Blum teaches a process comprising treating a paper with an aqueous solution comprising only a hydrolyzed homopolymer of N-vinylformamide, where the composition is applied in an amount of 2 g/m². Blum further teaches hydrolyzing the homopolymer to provide varying degrees of hydrolysis and imparting more or less cationic character to the polymer. Blum further teaches applying the coating by size press. However, Blum fails to teach or suggest the claimed charge density or degree of hydrolysis as is claimed, and fails to teach or suggest that these are result-effective variables, thereby failing to teach or suggest optimizing these parameters. Furthermore, Blum requires a coating step after the coating step with the cationic polymer, which has been excluded in applicant's claim. Therefore, claim 1 is patentable over the prior art of record. Claims 2-4, 6, 11-15, 17, 18 and 22-24 depend from claim 1, and are also allowable for the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue Art Unit: 1717

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Conclusion

Claims 1-4, 6, 11-15, 17, 18 and 22-24 are allowed.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to ROBERT S. WALTERS JR whose telephone number is

(571)270-5351. The examiner can normally be reached on Monday-Thursday, 9:00am to

7:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dah-Wei Yuan can be reached on (571)272-1295. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARIANNE L. PADGETT/ Primary Examiner, Art Unit 1717

/ROBERT S WALTERS JR/ November 4, 2011 Application/Control Number: 10/554,286 Page 5

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Examiner, Art Unit 1717